

**REMARKS**

Applicant thanks the Examiner for careful examination of the application. In view of the above amendments and the following remarks, Applicant respectfully requests favorable reconsideration of the application.

**1. Dispositions of the claims:**

Claims 1-6 and 12-16 are currently pending. Claims 7-11 have previously been withdrawn. Claims 1 and 12 are independent. Claims 2-6 depend, directly or indirectly, from claim 1. Claims 13-16 depend, directly or indirectly, from claim 12.

**2. Claim Amendments:**

Independent claims 1 and 12 have been amended in this response to further clarify the scope of the invention. Claims 2-4 and 13-16 are as previously presented. Claims 5 and 6 are as originally filed. No new matter has been added by this amendment. Support for the amendment can be found, for example, on page 7, lines 19-24, and figure 3A, of the Applicant's original specification.

**3. Rejection under 35 U.S.C. §112:**

The Examiner rejected previously presented claim 1 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner stated that the last four lines of previously presented claim 1, which read "forming a light emitting section on a central section of the nitride semiconductor chip and forming an electrode at opposing ends of a planar surface of a nitride semiconductor chip," does not have written description support because the specification does not teach any planar surface nor does

it teach forming electrodes at opposite ends of a planar surface. In this instant case, the Examiner had interpreted “planar surface” to mean “on the same plane” and asserted that since the specification does not disclose any electrodes on the same plane, therefore, the “opposite ends of a planar surface” limitation lacks written description support in the specification.

In response, Applicant submits that the Examiner had misconstrued what the Applicant meant by “planar surface.” However, Applicant understands how this language might be misconstrued and, accordingly, has amended claim 1 to avoid using the problematic “planar surface” language.

Claim 1, as currently amended, is clearly supported by the original specification. For example, figure 3A clearly shows two electrodes placed at opposing ends of a rhombus-shaped semiconductor, and page 7, lines 19-24, describes the benefit of such an arrangement. In view of this amendment, withdrawal of this rejection is respectfully requested.

#### **4. Rejections under 35 U.S.C. §103(a):**

The Examiner rejected claims 1-6 and 12-16 under 35 U.S.C. §103(a) as being unpatentable over Motoki et al. (EP 0961328 A2) or Shakuda et al. (JP 10-275933) in view of Applicant’s Admitted Prior Art (AAPA). In response, both claims 1 and 12 have been amended to include the “triangular electrodes” limitation to better distinguish from the prior art. Support for the “triangular electrodes” can also be found in figure 3A and page 7, lines 19-24 of the specification. No new matter has been added by this amendment. To the extent that this rejection may still apply to the amended claims, this rejection is respectfully traversed.

With regard to independent claim 1 and its dependent claims, the Examiner stated in the Office Action that Motoki et al teaches a p-electrode at a top portion of an LED; an n-

electrode on the opposite side; on a bottom portion of an LED; and a light emitting section in the middle, and then relies on AAPR for teaching of the “grinding the substrate surface” limitation recited in the dependent claims. The Examiner also cited Shakuda as an alternate primary reference that shows a diamond (rhombus) shaped semiconductor having electrodes at each end and then relies on AAPR for teaching of the “grinding substrate” limitation recited in the dependent claims.

With respect to the combination of Motoki and AAPR, Applicant respectfully submits that these two references do not form a *prima facie* case of obviousness against claim 1, as currently amended. MPEP 2143 states that to establish a *prima facie* case of obviousness, three basic criteria must be met, namely, 1) there must be some suggestion or motivation either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify or combine reference teachings; 2) there must be a reasonable expectation of success; and 3) the prior art reference (or references when combined) must teach all the claim limitations.

In this instant case, claim 1, as amended, recites a method for manufacturing a nitride semiconductor chip comprising the steps of growing nitride crystals of a hexagonal system on a surface of a substrate; cutting said substrate along two directions that form a 120 degree angle; forming a light-emitting section on a central section of the nitride semiconductor chip; and forming triangular electrodes at opposing ends of the nitride semiconductor chip. Motoki discloses a method of growing GaN epitaxially to form a single crystal GaN which has natural cut lines that can be easily cut to form clean cleavages. Motoki states that there are certain “difficulty of cutting” associated with using sapphire as a substrate and “[t]here is no way to over come these difficulties as long as sapphire is used as a substrate material,” (column 2,

paragraph [005] and paragraph [007]. In contrast, Applicant's invention does not have this limitation, and has indeed disclosed sapphire as a workable substrate (page 6, line 25). Thus, Motoki actually teaches away from the present invention. Furthermore, Motoki does not teach LEDs with triangular electrodes located at each end along a line viewed from a planar surface. All of the LED examples disclosed in Motoki show electrodes in a top/bottom configuration, located centrally as viewed from a planar view (see Motoki, figures 7-11). The combination of Motoki and AAPA, as suggested by the Examiner, does not meet the criteria of *prima facie* obviousness because neither Motoki nor AAPA discloses the "triangular electrodes" limitation and because Motoki actually teaches away from the present invention; the fact that Motoki teaches away from the present invention is evidence that there is no motivation for combining the teachings of Motoki with AAPA in the manner suggested by the Examiner. Thus, the combination of Motoki and AAPA fails to meet the criteria for establishing a *prima facie* case of obviousness on at least two counts.

With respect to the combination of the Shakuda reference and AARP, although Shakuda discloses a diamond-shaped semiconductor, Shakuda does not disclose the "triangular electrodes" limitation recited in currently amended claim 1. For at least this reason, the combination of Shakuda and AAPA does not meet the criteria for a *prima facie* case of obviousness.

In view of the forgoing, claim 1, as amended, should be allowable over the cited references. The dependent claims 2-6 should also be allowable for at least the same reasons. Therefore, withdrawal of this rejection is respectfully requested.

With regard to independent claim 12, the Examiner rejected previously presented claim 12 under 35 U.S.C. 103(a), but did not provide any explanation for the rejection in the

Office Action. Absent specific reasons for the rejection, Applicant is unable to formulate a response. However, noting that none of the cited references discloses the “triangular electrode” limitation recited in currently amended claim 12, Applicant respectfully submits that a *prima facie* case of obviousness cannot be established base on the cited references for at least this reason. Therefore, claim 12, as amended, should be allowable over the cited references. Dependent claims 13-16 should also be allowable for at least the same reasons. Withdrawal of this rejection is also requested.

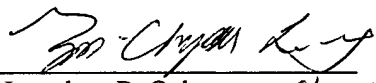
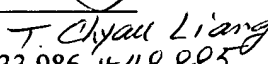
### CONCLUSION

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below.

Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 08228/019001).

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